STATEMENT OF BASIS

for the issuance of Draft Air Permit # 698-AR-6

1. PERMITTING AUTHORITY:

   Arkansas Department of Environmental Quality
   8001 National Drive
   Post Office Box 8913
   Little Rock, Arkansas 72219-8913

2. APPLICANT:

   Firestone Building Products, Inc.
   1406 Highway 371 North
   Prescott, Arkansas 71857

3. PERMIT WRITER:

   David Triplett

4. PROCESS DESCRIPTION AND SIC CODE:

   SIC Description: Manufacturer of Rubber Roofing Materials
   SIC Code: 3069

5. SUBMITTALS: March 7, 2003

6. REVIEWER'S NOTES:

Firestone Building Products, Inc. owns and operates a rubber roofing manufacturing facility located in Prescott, Arkansas. This modification to the Minor Source Air Permit for the facility is being issued in order to allow for the installation of a second primer machine, to be controlled by the existing thermal oxidizer at the plant (SN-315). In addition to the installation of the new primer machine, this modification will allow for an increase in the allowable VOC content of primer materials used in the two primer machines, as well as to allow for a slight increase in the maximum daily primer usage of primer at the machines. The new daily primer usage limitation will be 28.0 gallons of primer per day. The new maximum VOC content for the primer materials will be limited to 6.62 lb VOC per gallon of primer. Permitted emissions from the facility will increase by 1.0 tpy VOC and 1.05 tpy of total HAPs as a result of this modification.

7. COMPLIANCE STATUS: The following summarizes the current compliance status of the facility including active/pending enforcement actions and recent compliance activities and issues

There are currently no enforcement actions against this facility.

8. APPLICABLE REGULATIONS:

A. Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera) (Y/N) N
Has this facility undergone PSD review in the past (Y/N) N Permit #

Is this facility categorized as a major source for PSD? (Y/N) N
$ 100 tpy and on the list of 28 (100 tpy)? (Y/N) _N_
$ 250 tpy all other (Y/N) _N_

B. PSD Netting

Was netting performed to avoid PSD review in this permit? (Y/N) N

C. Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
N/A		

9. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (ton/yr)			
Pollutant	**Air Permit 698-AR-5**	**Air Permit 698-AR-6**	**Change**
PM/PM_{10}	51.7	51.7	0
SO_2	0.4	0.4	0

Plantwide Permitted Emissions (ton/yr)			
Pollutant	**Air Permit 698-AR-5**	**Air Permit 698-AR-6**	**Change**
VOC	85.3	86.3	1.0
CO	15.7	15.7	0
NO_X	**60.9**	**60.9**	**0**
1,3-Butadiene	**0.04**	**0.04**	**0**
MEK	0.39	0.39	0
Benzene	3.27	3.27	0
Cumene	0.28	0.28	0
POC	0.17	0.17	0
Epichlorohydrin	0.30	0.30	0
Ethylbenzene	0.45	0.45	0
Hexane	0.94	0.94	0
m- and p-Xylene	2.27	2.27	0
o-Xylene	0.62	0.62	0
Dichloromethane	0.53	0.53	0
Nickel Compounds	0.04	0.04	0
Phenol	0.04	0.04	0
Toluene	2.94	2.94	0
Primer Machine HAPs	2.25	3.30	1.05

10. MODELING:

A. Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

11. Non-Criteria Pollutants

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The PAER was deemed by the Department to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists **(ACGIH).**

In addition, the primer machine has been permitted to emit any HAP with a TLV greater than or equal to 85 mg/m^3. This number was determined by back-calculating from the PAER equation. The calculations submitted by Firestone indicate that 0.98 lb/hr of HAP will be emitted from the facility. Dividing this number by 0.11 results in an allowable TLV of 8.909 mg/m^3. In order to allow for emissions of HAPs from other sources at the facility, the calculated TLV was increased by one order of magnitude, and rounded down to 85. This should allow for sufficient margin of error to ensure that no single HAP exceeds the Department PAER or PAIL screening criteria, while allowing sufficient flexibility in the choice of primer materials for the facility.

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
1,3-Butadiene	4.42	0.4862	0.02	Yes
MEK	589.77	64.8747	0.13	Yes
Benzene	1.59	0.1749	1.12	No
Cumene	245.78	27.0358	0.09	Yes
POC	52.42	5.7662	0.06	Yes
Epichlorohydrin	1.89	0.2079	0.10	Yes
Ethylbenzene	434.19	47.7609	0.16	Yes
Hexane	176.23	19.3853	0.32	Yes
m- and p-	434.19	47.7609	0.78	Yes

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
Xylene				
o-Xylene	**434.19**	**47.7609**	**0.22**	**Yes**
Dichloromethane	**173.68**	**19.1048**	**0.17**	**Yes**
Nickel Compounds	**0.1**	**0.011**	**0.01**	**Yes**
Phenol	**19.24**	**2.1164**	**0.01**	**Yes**
Toluene	**188.40**	**20.724**	**2.43**	**Yes**

2nd Tier Screening (PAIL)

ISCST3 air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound was deemed by the Department to be one one-hundredth of the Threshold Limit Value, as listed by the ACGIH.

Pollutant	(PAIL, $\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Benzene	**15.9**	**13.92**	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
All PM sources	Testing		None		PM/PM_{10} emissions from all particulate sources are based on testing data from the facility which was submitted to the Department on March 2, 1995.
104, 120, 109, 15, 04, 20, 09, 11, 10, 12, 13, 14, 204, 205 ,115, 323, 114, 116, 08,	Rubber Manufacturer Association (RMA) Emission Factors				HAP and VOC emissions calculated based on RMA emission factors for each of the 4 types of rubber processes conducted at the Prescott Plant (Calendering, Curing, Mixing, and Extruding) Annual emissions calculated based on annual throughput limit from permit. Hourly emissions based on maximum hourly capacity of the plant.
315	Mass Balance		Thermal Oxidizer	95% Capture 95% destruction	Emissions based on a mass balance calculated, and the capture/destruction efficiency of the TO.
15, 500, 501	Mass Balance				Mass Balance assuming 100% of VOC in raw materials is emitted to atmosphere

13. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

There are no testing requirements in this permit.

14. MONITORING OR CEMS

The following are parameters that must be monitored with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
315	Temperature	Continuous Temp. Sensor	Continuous	N

15. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	**Recorded Item**	**Limit (as established in permit)**	**Frequency ***	**Report (Y/N)****
15	Mineral Oil Usage	30 tons/month 350 tons/year	Monthly	N
15	Mineral Oil VOC content	5% by weight	Monthly	N

SN	Recorded Item	Limit (as established in permit)	Frequency *	Report (Y/N)**
500	Cold Cleaning Solvent Usage	11.0 gal/month 130 gal/year	Monthly	N
500	Cold Cleaning Solvent VOC Content	8.9 lb/gal	Monthly	N
501	Inks and Cleaners Usage	370 gal/year	Monthly	N
501	Inks and Cleaners VOC Content	6.66 lb/gal	Monthly	N
315	Primer Machine Solvent formulation limits	6.62 lb/gal VOC 6.62 lb/gal Total HAP	Monthly	N
315	Primer Usage	28.0 gal. per day	Daily	N
03,103	Total Rubber Production Limit	18MM lb/month 316MM lb/year	Monthly	N

*** Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)**
**** Indicates whether the item needs to be included in reports**

16. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
SN-15,	20	Department Guidance	Observation

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
SN-09, SN-11, SN-10, SN-12, SN-13, SN-14, SN-115, SN-323A, SN-323B, SN-206, SN-207, SN-330, SN-313			
All other sources	5	Department Guidance	Observation

17. DELETED CONDITIONS:

The following Specific Conditions were included in the previous permit, but deleted for the current permitting action.

Former SC	Justification for removal
	No former conditions were removed with the modified permit

18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

List all active permits for this facility which are voided/superseded/subsumed by issuance of this permit.

Permit #

698-AR-5

19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

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Lyndon Poole, P.E.